ECH Series Brushless Coreless Motor

VEICHIMOTOR

VEICHI

Suzhou Veichi Electric Co., Ltd

No.1000 Songjia Road, Guoxiang street, Wuzhong Economic and Technological Development Zone,

Tel: +86-512-6617 1988 Fax: +86-512-6617 3610 Facebook: https://www.facebook.com/ veichigroup WhatsApp: +86-138 2881 8903 Https://www.veichi.org/



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VEICHI Electric (stock code: 688698) is a high-tech company focused on electrical drive and industrial control, offering a full range of industrial automation products. With facilities in Suzhou, Shenzhen, Xi'an, and a subsidiary in India, VEICHI serves customers worldwide with reliable and competitive offerings.

The company boasts an extensive portfolio of products, encompassing AC drives, servo systems, and control systems, which are widely utilized across various sectors such as heavy industry, light industry, and high-end equipment, providing scenario-based solutions that support the digital and intelligent transformation of the manufacturing industry. Moreover, the company is in lockstep with the zeitgeist, expanding its reach into burgeoning fields like robotics, renewable energy, and healthcare with a suite of innovative products, including hollow cup motors, frameless motors, hybrid inverters, and surgical power systems. These cutting-edge offerings significantly enhance the prosperity and advancement of the industries they serve.

Years of R&D efforts have led to mastery in the core technologies of motor control vigor. such as vector control of PMSM, V/F control, high-frequency pulse injection control,

field-weakening control for higher speed etc, and of silicon carbide application, motor auto tuning, motor protection and fly track start-up. And it has also successfully cultivated a series of patented technologies with independent intellectual property rights. As of June 30, 2024, a total of 221 patents have been granted, including 51

Over the course of 19 years, VEICHI has earned recognition and certifications from national and authoritative bodies like the third batch of specialized, high-end and nnovation-driven SMEs that provide distinctive products or services, "high-tech enterprise", "Jiangsu Provincial Engineering Technology Research Center", "Jiangsu Provincial Enterprise Technology Center", and "Jiangsu Industrial Internet Development Demonstration Enterprise (Benchmarking Factory Category)".

Steadfast in its commitment to the business philosophy of "guided by market demand and driven by technological innovation", VEICHI will fortify its research in key core technologies and enhance product iteration to expand relentlessly across the spectrum of high-performance and quality applications. This strategic focus will enable us to make significant contributions to the evolution of electrical drive and





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ECH Series Brushless **Coreless Motor**

Ο

ECH series DC brushless coreless motors High-speed adopt electronic commutation, which senses the position of permanent magnets by Hall elements and then switches the current direction in the electronic circuit, thus changing the magnetic force.

The advantage of ECH series motors is that it eliminates the loss of brushes and the interference of electric spark to electronic equipment, prolonging service life to tens of thousands of hours.

These motors offer higher speed and torque and lower noise and vibration for smooth operation and more precise control.



Naming Rules

Terminal Definition



One-piece stainless steel motor housing for high structural strength

Super iron core for high speed operation, low iron loss and no-load loss

Efficient hollow cup winding

Dynamically balanced rotor for high-speed and low-vibration operation

Ultra-quick sterilized bearings for long operating life

Customizable high-strength spindles

Features

This motor is free of the brush and the core while it can offer high-speed, high-torque, and low-noise and low-vibration operation by even more precise control. And the compact motor provides higher efficiency and power density.

High-speed/torque:

Low eddy current losses in the core and the close arrangement of the windings for high-speed and hightorque operation

Rapid response:

Low motor rotor inertia, mechanical time constant less than 28ms, 10ms for certain products (100ms or more for general motors with cores)

Motor Terminal						
Red	U					
Black	V					
White	W					

Sensor Terminal					
Orange	+5V				
Blue	GND				
Yellow	h1				
Brown	h2				
Grey	h3				



Low-noise/vibration:

No cogging effect on the motor core for stable motor performance at different speeds

High power density : Less weight and volume by 1/3-1/2 compared to general motors with cores

No.	ltem	Value	Unit
	Ratings		
01	Rated voltage	12	V
02	No-load speed	40000	rpm
03	No-load current	60	mA
04	Rated speed	20000	rpm
05	Rated torque (maximum continuous torque)	0.3	mNm
06	Rated current (maximum continuous current)	0.13	А
07	Stall torque	0.69	mNm
08	Stall current	0.24	A
09	Maximum efficiency	60	%
10	Inter-phase resistance	50	Ω
11	Inter-phase inductance	0.2	mH
12	Torque constant	2.86	mNm/A
13	Speed constant	3330	rpm/V
14	RPM/torque gradient	58178	rpm/mNm
15	Mechanical time constant	7	ms
16	Rotor inertia	0.01	gcm²
	Thermal Parameters		
17	Housing-Ambient thermal resistance	85	K/W
18	Winding- Housing thermal resistance	12	K/W
19	Winding thermal time constant	1	S
20	Motor thermal time constant	100	S
21	Working temperature	-40~105	°C
22	Maximum winding temperature	155	°C
	Ball Bearing		
23	Maximum speed	50000	rpm
	Axial clearance	0~0.28	mm
24	Preload	1	Ν
	Preload direction		
25	Axial clearance	Preload	
26	Maximum axial load	0.2	Ν
27	Maximum allowable mounting force	10	Ν
28	Static axial support	50	Ν
20	Maximum radial load	2 (5)	Ν
	Encoder Parameters		
29	Pole pair	1	
30	Phase no.	3	
31	Motor weight	2.3	g
32	Typical noise	55	dBA

6mm Motor Specifications



No.	1	2	3	4	5	6
Function	Hall sensor A	Hall sensor B	Hall sensor C	Udd	GND	Winding A
No.	7	8				
Function	Winding B	Winding C				

Products above are standard , and they are customizable according to the actual requirements of different motor grades and speeds , with different gearbox reduction ratios.

No.	Item	Value	Unit
01	Rated voltage	12	V
02	No-load speed	40000	rpm
03	No-load current	105	mA
04	Rated speed	32000	rpm
05	Rated torque (maximum continuous torque)	1.1	mNm
06	Rated current (maximum continuous current)	0.4	А
07	Stall torque	12.48	mNm
08	Stall current	4	А
09	Maximum efficiency	76.4	%
10	Inter-phase resistance	3	Ω
11	Inter-phase inductance	0.1	mH
12	Torque constant	2.98	mNm/A
13	Speed constant	3200	rpm/V
14	RPM/torque gradient	3217	rpm/mNm
15	Mechanical time constant	1.6	ms
16	Rotor inertia	0.02	gcm ²
	Thermal Parameters		
17	Housing-Ambient thermal resistance	40	K/W
18	Winding- Housing thermal resistance	3.5	K/W
19	Winding thermal time constant	2	S
20	Motor thermal time constant	200	S
21	Working temperature	-40~105	°C
22	Maximum winding temperature	155	°C
	Ball Bearing		
23	Maximum speed	50000	rpm
	Axial clearance	0~0.28	mm
24	Preload	1.2	Ν
	Preload direction		
25	Axial clearance	Preload	
26	Maximum axial load	0.2	Ν
27	Maximum allowable mounting force	10	Ν
29	Static axial support	50	Ν
20	Maximum radial load	2 (5)	Ν
	Encoder Parameters		
29	Maximum wire no. per turn	1024	
30	Channel No.	3	Channel
31	Power supply voltage	5	V
32	Typical current	10	mA
33	Maximum operating frequency	900	kHz
34	Maximum allowable speed	55000	rpm
	Other Parameters		
35	Pole pair	1	
36	Phase no.	3	
37	Motor weight	6	g
38	Typical noise	55	dBA

8mm Motor Specifications



No.	1	2	3	4	5	6
Function	W-phase	V-phase	U-phase	GND	Udd	Hall sensor C
No.	7	8	9	10	11	12
Function	Hall sensor B	Hall sensor A	Signal source B	Signal source A	Signal source I (Index)	Reserved

Products above are standard , and they are customizable according to the actual requirements of different motor grades and speeds , with different gearbox reduction ratios.

No.	Item	Value		Unit
	Ratings			
01	Rated voltage	12	24	V
02	No-load speed	33600	33600	rpm
03	No-load current	65	50	mA
04	Rated speed	27397	28170	rpm
05	Rated torque (maximum continuous torque)	2.28	2.40	mNm
06	Rated current (maximum continuous current)	0.74	0.40	А
07	Stall torque	12.48	14.88	mNm
08	Stall current	3.69	2.18	A
09	Maximum efficiency	76.4	78.2	%
10	Inter-phase resistance	3.25	11	Ω
11	Inter-phase inductance	6.35	9.2	mH
12	Torque constant	3.38	6.82	mNm/A
13	Speed constant	2825	1400	rpm/V
14	RPM/torque gradient	2716	2258	rpm/mNm
15	Mechanical time constant	2	2.2	ms
16	Rotor inertia	0.	.07	gcm²
	Thermal Parameters			
17	Housing-Ambient thermal resistance	4	2.0	K/W
18	Winding- Housing thermal resistance	7.0		K/W
19	Winding thermal time constant	5.0		S
20	Motor thermal time constant	155.0		S
21	Working temperature	-40	°C	
22	Maximum winding temperature	1	°C	
	Ball Bearing			
23	Maximum speed	50	000	rpm
	Axial clearance	0~0.28		mm
24	Preload	1	.5	Ν
	Preload direction			
25	Axial clearance	Pre	load	
26	Maximum axial load	1	.3	N
27	Maximum allowable mounting force	1	11	Ν
28	Static axial support	2	00	N
	Maximum radial load	2.5	(4)	Ν
	Encoder Parameters			
29	Maximum wire no. per turn	10)24	
30	Channel No.		3	Channel
31	Power supply voltage	5		V
32	Typical current		10	mA
33	Maximum operating frequency	900		kHz
34	Maximum allowable speed	55	000	rpm
	Other Parameters			
35	Pole pair		1	
36	Phase no.		3	
37	Motor weight	1	10	g
38	Typical noise	1	55	dBA

10mm Motor Specifications



No.	1	2	3	4	5	6
Function	W-phase	V-phase	U-phase	GND	Udd	Hall sensor C
No.	7	8	9	10	11	12
Function	Hall sensor B	Hall sensor A	Signal source B	Signal source A	Signal source I(Index)	Reserved

Products above are standard, and they are customizable according to the actual requirements of different motor grades and speeds, with different gearbox reduction ratios.

No.	Item	Value		Unit	
	Ratings				
01	Rated voltage	24	36	48	V
02	No-load speed	87000	87000	87000	rpm
03	No-load current	600	450	350	mA
04	Rated speed	80000	80000	80000	rpm
05	Rated torque	7	7	7	mNm
06	Rated current	3.37	2.31	1.4	A
07	Stall torque	191	202	201.44	mNm
08	Stall current	75	52.9	38.17	A
09	Maximum efficiency	90	90	90	%
10	Inter-phase resistance	0.32	0.68	1.45	Ω
11	Inter-phase inductance	160	350	650	uH
12	Torque constant	3.55	3.82	5.4	mNm/A
13	Speed constant	3750	2500	1835	rpm/V
14	RPM/torque gradient	471	445	437	rpm/mNm
15	Mechanical time constant		1.92		ms
16	Rotor inertia		0.42		gcm²
	Thermal Parameters				
17	Housing-Ambient thermal resistance		22.13		K/W
18	Winding- Housing thermal resistance	1.92			K/W
19	Winding thermal time constant	2.62			S
20	Motor thermal time constant	502			S
21	Working temperature	-40~135			°C
22	Maximum winding temperature	155			°C
	Ball Bearing				
23	Maximum speed		90000		rpm
	Axial clearance		0~0.28		mm
24	Preload		4.5		N
	Preload direction		Drawing		
25	Axial clearance		Preload		
26	Maximum axial load		1.5		Ν
27	Maximum allowable mounting force		50		Ν
٥٢	Static axial support		1500		Ν
20	Maximum radial load		6 (5)		Ν
	Other Parameters				
29	Pole pair		1		
30	Phase no.	3			
31	Motor weight	42			g
32	Typical noise		56		dBA
33	Autoclaving cycle	500+			

13mm Motor Specifications



Products above are standard , and they are customizable according to the actual requirements of different motor grades and speeds, with different gearbox reduction ratios.

No.	Item	Value	Unit
	Ratings		
01	Rated voltage	48	V
02	No-load speed	68000	rpm
03	No-load current	500	mA
04	Rated speed	60000	rpm
05	Rated torque (maximum continuous torque)	14	mNm
06	Rated current (maximum continuous current)	2.20	A
07	Stall torque	390	mNm
08	Stall current	55	A
09	Maximum efficiency	88	%
10	Inter-phase resistance	0.2	Ω
11	Inter-phase inductance	90	uH
12	Torque constant	7	mNm/A
13	Speed constant	1333	rpm/V
14	RPM/torque gradient	164	rpm/mNm
15	Mechanical time constant	1.65	ms
16	Rotor inertia	0.952	gcm²
	Thermal Parameters		
17	Housing-Ambient thermal resistance	13.7	K/W
18	Winding- Housing thermal resistance	0.6	K/W
19	Winding thermal time constant	1.3	S
20	Motor thermal time constant	490	S
21	Working temperature	-40 ~ 135	°C
22	Maximum winding temperature	155	°C
	Ball Bearing		
23	Maximum speed	70000	rpm
	Axial clearance	0~0.29	mm
24	Preload	1.5	Ν
	Preload direction	Drawing	
25	Axial clearance	Preload	
26	Maximum axial load	1.5	Ν
27	Maximum allowable mounting force	60	Ν
	Static axial support	2500	Ν
28	Maximum radial load	10 (5)	N
	Other Parameters		
29	Pole pair	1	
30	Phase no.	3	
31	Motor weight	60	g
32	Typical noise	55	dBA

16mm Motor Specifications



Products above are standard , and they are customizable according to the actual requirements of different motor grades and speeds , with different gearbox reduction ratios.

PG Series Gearbox



The VEICHI PG gearboxes, with their compact design and small dimensions, adopts the swing wheel system to save the footprint. Modular structure and scaling size provide solutions for customized drives in many fields. With its superior performance in the aspects of torque, speed, power, efficiency, noise and backlash, VEICHI PG meets all the drive applications.

Features

PG series gearboxes are characterized by high speed, high torque, high power, low noise, and low backlash. The gearboxes run smoothly and transmit power accurately; Trace friction and compact structure bring the gearboxes excellent performance of low temperature rise .

(d)



gear materials ensure transmission at high speeds, high torques and high power.

Low-noise/backlash

Dedicated gear design and compact structure brings more stable gearbox performance.

Low temperature rise and high efficiency

Low friction and small contact area result in less heat generation and higher efficiency in the gear. -0

Naming Rules **PG 10 - 16 Reduction Ratio** 16: Gearbox reduction ratio 16:1 **Gearbox Outer Diameter** 10: Outer diameter of the gearbox is 10mm **Product Series PG** Abbreviation for Planetary Gearbox.

6mm Gearbox Specifications



Main Technical Parameters					
J					
1					
0					
50					
aring					

Reduction ratio Max. transmission p Max. transmission p Max. continuous to Max. continuous to Max. continuous inp Max. instantaneou Max. efficiency Max. axial load Max. radial load Reduction gearbox Weight

Gearbox Param

Stage





26

* Products above are standard, and they are customizable according to the actual requirements of different motor reduction ratios.

eters							
		1	2	3	4	5	6
		4	16	64	256	1024	4096
oower (continuous)	W	0.50	0.42	0.36	0.42	0.13	0.03
oower (instantaneous)	W	0.75	0.64	0.54	0.63	0.19	0.05
rque	Nm	0.001	0.003	0.011	0.051	0.061	0.061
rque	Nm	0.001	0.005	0.017	0.077	0.092	0.092
put speed	rpm	20000	20000	20000	20000	20000	20000
s input speed	rpm	40000	40000	40000	40000	40000	40000
	%	85%	81%	70%	60%	55%	48%
	N	5	5	5	5	5	5
	Ν	5	5	5	5	5	5
length L1	mm	8.9	11.6	14.3	17	19.7	22.4
	g	1.8	2.0	2.2	2.5	2.7	2.9

8mm Gearbox Specifications





* Products above are standard, and they are customizable according to the actual requirements of different motor reduction ratios.

10mm Gearbox Specifications



Main Technical Parameters					
Maximum transmission power	W	2			
Maximum continuous torque	Nm	0.085			
Maximum continuous input speed	rpm	30000			
No-load average backlash	٥	3			
Working temperature	°C	-40~150			
Output bearing		Ball Bearing			

Gearbox Parameters							
Stage		1	2	3	4	5	6
Reduction ratio		4	16	64	256	1024	4096
Max. transmission power (continuous)	W	2.32	1.97	1.68	0.63	0.19	0.07
Max. transmission power (instantaneous)	W	3.48	2.96	2.52	0.94	0.28	0.10
Max. continuous torque	Nm	0.003	0.010	0.034	0.051	0.061	0.085
Max. continuous torque	Nm	0.004	0.015	0.051	0.077	0.092	0.128
Max. continuous input speed	rpm	30000	30000	30000	30000	30000	30000
Max. instantaneous input speed	rpm	40000	40000	40000	40000	40000	40000
Max. efficiency	%	85%	81%	70%	60%	55%	48%
Max. axial load	Ν	5	5	5	5	5	5
Max. radial load	Ν	5	5	5	5	5	5
Reduction gearbox length L1	mm	9.3	12	14.7	17.4	20.1	22.8
Weight	g	3.1	3.4	3.7	4.1	4.4	4.7

Main Technical Parameters					
Maximum transmission power	W	5.5			
Maximum continuous torque	Nm	0.15			
Maximum continuous input speed	rpm	26000			
No-load average backlash	٥	3			
Working temperature	°C	-40~150			
Output bearing		Ball Bearing			

Gearbox Parameters									
Stage		1	2	3	4	5	6		
Reduction ratio		4	16	64	256	1024	4096		
Max. transmission power (continuous)	W	5.5	5	3	1	0.26	0.1		
Max. transmission power (instantaneous)	W	8.3	7.5	4.7	1.6	0.4	0.15		
Max. continuous torque	Nm	0.008	0.03	0.07	0.1	0.1	0.15		
Max. continuous torque	Nm	0.012	0.04	0.1	0.15	0.15	0.2		
Max. continuous input speed	rpm	26000	26000	26000	26000	26000	26000		
Max. instantaneous input speed	rpm	33000	33000	33000	33000	33000	33000		
Max. efficiency	%	90%	81%	73%	66%	59%	53%		
Max. axial load	Ν	5	5	5	5	5	5		
Max. radial load	Ν	5	10	10	10	10	10		
Reduction gearbox length L1	mm	12.4	15.5	18.6	21.7	24.8	27.9		
Weight	g	5.6	7	8.4	9.8	11.2	12.6		

according to the actual requirements of different motor reduction ratios.

13mm Gearbox Specifications





* Products above are standard, and they are customizable according to the actual requirements of different motor reduction ratios.

Main Technical Parameters						
Maximum transmission power	W	15				
Maximum continuous torque	Nm	0.15				
Maximum continuous input speed	rpm	80000				
No-load average backlash	٥	3				
Working temperature	°C	-40~150				
Output bearing		Ball Bearing				

Gearbox Parameters				
Stage		1	2	3
Reduction ratio		5	25	125
Max. transmission power (continuous)	W	0.04	15	7
Max. transmission power (instantaneous)	W	0.047	19	9
Max. continuous torque	Nm	0.032	0.06	0.15
Max. continuous torque	Nm	0.038	0.075	0.19
Max. continuous input speed	rpm	60000	60000	60000
Max. instantaneous input speed	rpm	70000	70000	70000
Max. efficiency	%	90%	81%	73%
Max. axial load	Ν	5	5	5
Max. radial load	Ν	5	10	10
Reduction gearbox length L1	mm	30.4	37.6	44.8
Weight	g	22	28	34

16mm Gearbox Specifications



Gearbox Parameters										
Stage		1	1	1	2	2	2	2	2	2
Reduction ratio		3.9	5.3	6.6	16	21	26	28	35	44
Max. transmission power (continuous)	W	91	91	91	64	52	44	44	39	34
Max. transmission power (instantaneous)	W	109	109	109	77	62	53	53	47	41
Max. continuous torque	Nm	0.053	0.071	0.088	0.146	0.159	0.169	0.183	0.202	0.217
Max. continuous torque	Nm	0.063	0.085	0.106	0.176	0.191	0.203	0.220	0.243	0.261
Max. continuous input speed	rpm	65000	65000	65000	65000	65000	65000	65000	65000	65000
Max. instantaneous input speed	rpm	70000	70000	70000	70000	70000	70000	70000	70000	70000
Max. efficiency	%	85%	85%	85%	80%	80%	80%	80%	80%	80%
Max. axial load	Ν	30	30	30	30	30	30	30	30	30
Max. radial load	Ν	15	15	15	20	20	20	20	20	20
Reduction gearbox length L1	mm	35.22	35.22	35.22	42.72	42.72	42.72	42.72	42.72	42.72
Weight	g	36.5	36.5	36.5	45	45	45	45	45	45

Main Technical Parameters		
Maximum transmission power	W	91
Maximum continuous torque	Nm	0.217
Maximum continuous input speed	rpm	65000
No-load average backlash	٥	3
Working temperature	°C	-40~150
Output bearing		Ball Bearing

according to the actual requirements of different motor reduction ratios.



Specifications

Basic specifications:

Drive voltage	Up	6-48	
Motor voltage	Umot	0-48	
PWM switching frequency	fpwm	100	
Drive circuit efficiency	η	96	
Maximum continuous output current	Icont	5	
Maximum peak output current	Imax	7	
Drive standby current (voltage UP = 24V)	let	100	
Operating temperature		-10~+60	
Weight	M1	120	
Dimension	M2	58*25*13	

Installation Dimension:

0

0

0

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Naming Rules:

10.6









Interface Definition										
Power interface 1	1	Input power supply	6		11	Signal ground	16			
	2	U-phase	7		12	V-phase	17	Safety ground		
	3	Input power supply	8		13	Signal ground	18	W-phase		
	4	U-phase	9	Signal ground	14		19	Safety ground		
	5	Input power supply	10	V-phase	15	Signal ground	20	W-phase		
Encoder	1	5V	6	INC_A-	11	HALL_U	16	AIN1+		
	2	Signal ground	7	А	12	INC_Z+	17	AIN2+		
	3	ABS_CLK+	8	INC_B+	13	HALL_V	18	Signal ground		
	4	INC_A+	9	В	14	INC_Z-	19	Signal ground		
	5	ABS_CLK-	10	INC_B-	15	HALL_W	20	Safety ground		
ю	1	24VOUT	6	STO_RET	11	COMOUT	16	COMIN		
	2	STO_1	7	24VOUT	12	DI2	17	D01		
	3	24VOUT	8	STO_RET	13	COMOUT	18	COMIN		
	4	STO_2	9	COMOUT	14	DI3	19	D02		
	5	24VOUT	10	DI1	15	COMOUT	20	DC_OC		
Power interface 2	1	MODE	6	HALL_V	11	V-phase				
	2	INC_Z+	7	HALL_W	12	W-phase				
	3	INC_A+	8	5V						
	4	INC_B+	9	Signal ground						
	5	HALL_U	10	U-phase						



Features

PAM Modulation Low loss, low-power switch, low operating frequency, long life

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High Power Density High output torque, high-speed operation, motor speed up to 10W/speed

Application: Suitable for Hall sensor coreless motors Suitable for coreless motors with voltage levels of 12V~75V Suitable for high-speed coreless motors





Auxiliary function:

Current limit protection for different motor models through software settings

Specifications

Application

Basic Parameters

Model		VPS10-005L-S	VPS10-005H-S		1000ee
Driver Supply Voltage	Up	12-36	36-75	V DC	
Motor Supply Voltage	Umot	12-36	36-75	V DC	C. C. A.
Speed Regulation Method		PAM调制			
Drive Circuit Efficiency	η	95	95	%	
Max. Continuous Output Current	Icont	5	5	А	
Max. Peak Output Current	Imax	15 (小于20S)	15 (小于20S)	А	
Drive Circuit Standby Current (Voltage UP=24V)	lei	100	100	mA	
Operating Temperature Range		-40~+85	-40~+85	°C	
Weight	M1	180	180	g	
Dimensions	M2	165*90*60	165*90*60	mm	





Naming Rules





Robotic Dexterous Hand



Medical Equipment



Drones, Model Aircraft







Medical Prosthesis



Research and Production

R&D and Technology Platform

- > Consolidating a dynamic force of top-tier professionals and technical experts in domestic industrial control, our R&D team represents 37.16% of our workforce, with 74.62% of our technical staff boasting bachelor's degrees or higher.
- > Guided by philosophy of "Innovate with technology and strive for excellence," VEICHI is deeply customer-centric by providing stable and reliable products and technologies designed to the evolving needs of our clients.
- > Investing 10% of our revenue into R&D, VEICHI has crafted advanced labs for EMC, safety, reliability, and performance testing to ensure product quality.
- > In-depth cooperation with many famous universities and research institutions in China has been established and "Jiangsu Postdoctoral Innovation Practice Base" and "Jiangsu Postgraduate Workstation" are set up successively.

Intelligent Automation

- > Digitally driven from inception to production, VEICHI boasts an annual capacity of 914,600 units with streamlined efficiency.
- > 5 imported SMT placement lines, 5 automated coating lines, 4 DIP test lines, a robotic arm-equipped automated line, and 12 production lines are equipped with the latest intelligent manufacturing tools.
- > All of the product checks are carried out automatically by the management mode of 3 (tri-inspection system)+ 1(proportional inspection) during the whole process for standard performance.
- > Three major production management system WMS, MES and ERP together ensure that the unique code of each product is traceable in the system to manage product quality.

ROHS







ISO45001:2018











Customized Measurement 5-star after-sales products with RoHS2.0 System AAA certification certification



QC080000 Management service certification Management system

Service and Support





Domestic

261 contracted dealers developed across 22 provinces and cities in mainland China, as well as Hong Kong, Macao and Taiwan

Overseas

43+ overseas distributors with offices and service outlets across major cities in Southeast Asia, South Asia, CIS, the Middle East, Europe, Africa and the Americas

regular maintenance, timelyrepairs, application

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